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ABSTRACT

A study was conducted to compare the personality characteristics of two types of entrepreneurs, the craft-type and the opportunistic-type, which were described by Norman R. Smith. The craft-type entrepreneur is mainly interested in self-employment and owns a small business while the opportunistic-type, although interested in self-employment, primarily concentrates on expansion and organization building. Smith hypothesized that the two types differ in fourteen areas. To test Smith's hypothesis, sixty-four entrepreneurs (evenly divided between the two types) in central Illinois were interviewed and asked to respond to two instruments: a vocational preference inventory, developed by John L. Holland to measure personality types, and an attitude statement survey, designed by Hanna Levenson to measure locus of control. Analysis of the data showed that the two types differ on seven of Smith's variables and that Holland's and Levenson's classifications of personalities are consistent with Smith's. Based on these findings, the following recommendations were made for career and vocational education: (1) self-employment should be presented to students as a career option; (2) programs for entrepreneurship should be initiated at both secondary and postsecondary levels; (3) students should be made aware of the two types of entrepreneurship; and (4) further research is needed in self-employment from the perspective of career development theory. (A curriculum is suggested for teaching the skills necessary to entrepreneurship, and an approach is offered for the organization of instructional materials.' (ELG)

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PROJECT: Methods and Materials for Entrepreneurship Education
Phase I

Final Report

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Methods and Materials for Entrepreneurship Education PROJECT
PHASE I
FINAL REPORT

INTRODUCTION

Self-employment appears to be a neglected area of vocational education. A thorough review of the literature revealed little or no reference to entrepreneurs - persons who establish and maintain their own businesses. Self-employment and entrepreneurship are similarly neglected in career development theory. Current models of occupational choice and career development are oriented to existing jobs and occupations. They have not been elaborated in terms of the characteristics appropriate for entrepreneurship and self-employment.

In this study, the personality characteristics of two types of entrepreneurs, as suggested by Smith,[1] were compared. Smith constructed two Ideal Types of entrepreneurs, the Craft-type (C-E) and the Opportunistic type (O-E). The Craft-type entrepreneur is basically a small scale business owner who is interested in self-employment rather than other-employment. The Opportunistic-type entrepreneur, while interested in self-employment, is primarily interested in growth, expansion and organization building. Smith hypothesized that the two types differed on fourteen variables, listed in Table 1. By scoring an individual entrepreneur on each

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1. Norman R. Smith, The Entrepreneur and His Firm: The Relation Between Type of Man and Type of Company. Bureau of Business and Economic Research, Michigan State University, 1967.

of the fourteen variables, it was possible to place that individual along a Craft-Opportunistic continuum.

PURPOSES OF THE STUDY

The purposes of the study which is reported here may be summarized as follows:

(1) To check the validity of Smith's hypotheses

(2) To identify other variables on which C-E's and O-E's may differ

(3) To examine the personality characteristics of C-E's and O-E's from the perspectives of Holland's theory of career development[2] and of Levenson's measure of locus of control.[3]

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2. John L. Holland, Making Vocational Choices: A Theory of Careers. Englewood Cliffs, N.J.: Prentice Hall, Inc., 1973.

3. Hanna Levenson, "Distinctions Within the Concept of Internal-External Control: Development of a New Scale." Proceedings, 80th Annual American Psychological Association Convention. pp. 261-262, 1972.

TABLE 1

CONDENSED WORKING LIST

Craft Entrepreneur (C-E)	Opportunistic Entrepreneur (O-E)
The C-E perceives and reacts to a limited range of culture when compared to the O-E. Perceiving and reacting to a limited range of culture is <u>defined operationally</u> as follows:	The O-E perceives and reacts to a broad range of culture. Perceiving and reacting to a broad range of culture is <u>defined operationally</u> as follows:
(1) The C-E exhibits narrowness in education and training. a) Formal education--technical only. b) Work experience--technical only. c) Reference group other than management. d) No management sponsor or role-model.	(1) The O-E exhibits breadth in education and training. a) Formal education--technical plus. b) Work experience--technical plus. c) Reference group--management. d) Management sponsor or more than one role-model.
(2) The C-E exhibits low social awareness and low social involvement. a) Belongs to professional associations only. b) Limited effectiveness in communication ability.	(2) The O-E exhibits high social awareness and high social involvement. a) Belongs to community associations as well as professional associations. b) Effective with many forms of communication.
(3) The C-E exhibits a lack of flexibility and confidence in his ability to deal with the economic and social environments. a) Does not delegate authority or responsibility in order to allow him to build a large organization. b) Hires on a particularistic basis. c) Does not utilize over two sources of capital for the initiation of his business. d) Organizational sales made mainly on the basis of personal contact and reciprocity. e) Competitive strategy envisaged by the C-E limited to quality, price, and reputation of the company.	(3) The O-E exhibits flexibility and confidence in his ability to deal with the economic and social environment. a) Delegates authority or responsibility in order to allow himself to build a large organization. b) Hires on a universalistic basis. c) Utilizes over two sources of capital for the initiation of his business. d) Uses a variety of marketing methods to gain customers. e) Various competitive strategies are employed in addition to price and quality.
(4) The C-E exhibits a time orientation circumscribed to the present and the past. a) The C-E had no long-range plans for the initiation of his company.	(4) The O-E exhibits an awareness and orientation to the future.

Condensed Working List (cont.)

Craft Entrepreneur (C-E)	Opportunistic Entrepreneur (O-E)
b) Has no plans to change the basic character of the company or attempt to bring about an increase in growth rate. c) The C-E is paternalistic in his employee relations.	a) The O-E makes long-range plans to initiate the company when the time is ripe. b) The O-E makes plans for his company's growth. c) The O-E is not paternalistic in his employee relations.

Source: Norman Raymond Smith. The Entrepreneur and His Firm: The Relationship between Type of Man and Type of Company. Occasional Paper. Bureau of Business and Economic Research, Michigan State University, 1967.

METHOD

Sample: For the purposes of this study, a sample of sixty-four entrepreneurs was interviewed and asked to respond to two instruments. One half of the sample approximated C-E's and the other half approximated O-E's. The subjects were selected from the business sector of a town in central Illinois with the aid of an advisory group of ten persons who have extensive knowledge of the business community.

Procedure: A Self-Employment Interview Schedule was used to structure the interview procedures. Data were collected on the career background of subjects, and on their attitudes towards self-employment. Questions based on Smith's hypotheses were also included. Responses to these questions were used to score each subject along a Craft-Opportunistic continuum. Two additional instruments used in the investigation were the Vocational Preference Inventory (VPI), an instrument developed by Holland to measure personality types, and Levenson's Attitude Statement Survey (LASS), designed to measure locus of control.

T-tests and chi-square tests of significance were used to determine differences between C-E's and O-E's. Multiple discriminant analysis was used to ascertain which combination of Holland's and Levenson's scales maximally discriminated between C-E's and O-E's.

RESULTS

(1) Analysis of the data showed that, for the sample used in this study, seven of Smith's variables discriminated effec-

tively between C-E's and O-E's. Differences between the expected and observed frequencies were significant at the .01 level. The variables on which the two groups differed were:

(a) breadth of educational interests
(b) role model
(c) delegation practices
(d) hiring practices
(e) selling methods
(f) plans for growth
(g) employee relations.

(2) An analysis of other background variables showed that the two groups' scores were significantly different on the following additional variables:

(a) education level attained:
24% of C-E's and 68% of O-E's were college graduates
(b) size of business, as measured in terms of number of persons employed:
9% of C-E's and 74% of O-E's had 10 or more full-time employees
(c) number of businesses in which involved:
12% of C-E's and 65% of O-E's were involved in more than one business enterprise.

(3) Holland's Scales

The basic tenets of Holland's theory suggests that persons may be characterized by their resemblances to each of six personality types, R (Realistic), I (Investigative), A (Artistic), S (Social), E (Enterprising), and C (Conventional). Correspondingly, environments in which people live can be similarly characterized. Finally, the pairing of persons and environments leads to outcomes that include vocational choice, stability and success.

Table 2 shows results of analysis of scores of both types of

entrepreneurs on Holland's VPI scales.

TABLE 2

Means and Standard Deviations for Scores of Craft and Opportunistic Entrepreneurs on Holland's Scales and T-tests for Significant Differences

Holland Scales	Craft Entrepreneurs		Opportunisitc Entrepreneurs		T-value
	Mean	S.D.	Mean	S.D.	df=62
Realistic	3.5152	3.222	2.0323	2.822	1.95*
Investigative	2.4545	3.103	3.4839	4.162	-1.13
Social	1.4545	2.991	2.0968	2.599	-0.91
Conventional	2.3636	2.725	2.1613	2.721	0.30
Enterprising	5.0909	3.844	6.6452	3.808	-1.62
Artistic	2.4848	3.842	4.7742	4.303	-2.25*

* $p < .05$

Results of two-tailed t-tests show that while C-E's scored significantly higher than O-E's on Holland's Realistic scale, O-E's scored significantly higher than C-E's on the Artistic scale. The difference in mean scores for the two groups on the Enterprising scale was in the predicted direction and approached significance ($p=.105$).

Results of the discriminant analysis revealed that the discriminant function was significant at the .03 level with a canonical correlation of .524. The discriminant function indicated that the two groups can best be discriminated between by the Enterprising, Artistic and Realistic scales. Compared to O-E's, C-E's tend to score high on the Realistic and low on the Enterprising and Artistic scales. Conversely, O-E's tend to score high on the Enterprising and Artistic scales and low on the Realistic scale as compared to

C-E's. Using Holland's occupational coding system, the two groups may be described in terms of Holland's scales by rank-ordering those scales on which the three highest mean scores were obtained. Thus, C-E's may be described as ERA, and O-E's may be described as EAI.

The three letter Holland codes obtained for the two types of entrepreneurs seem compatible with their types as described by Smith. Background biographic data also appears to be consistent with their three letter codes. For example, when asked to indicate their educational interests, O-E's ranked their interests as business subjects (associated with Enterprising types), arts and humanities (associated with Artistic types), and the physical and biological sciences (associated with Investigative types). The ranking of the educational interests of C-E's were business (i.e. Enterprising), industrial arts and shop (i.e. Realistic), and arts and humanities (i.e. Artistic). When asked to indicate work experiences prior to self-employment, C-E's reported that their most common work experiences were as craftsmen (associated with Realistic types). The most common work experiences of O-E's were as professional, technical, kindred. Some, but not all of these types of occupations are associated with Enterprising types.

Levenson's Scales

Levenson's measure of locus of control consists of three independent scales:

> I scale, Internal, which measures the extent to which people believe they have control over their own lives

P scale, Powerful other, which measures the extent to which people believe they are controlled by powerful other people

C scale, Chance, which measures the extent to which people believe they are controlled by chance or fate.

The distinction between the P and C scales is that belief in control by powerful others does not eliminate the possibility of internal control, whereas belief in control by chance does eliminate the possibility of internal control. Table 3 shows results of analysis of scores of C-E's and O-E's on Levenson's scales.

TABLE 3

Means and Standard Deviations for Scores of Craft and Opportunistic Entrepreneurs on Levenson's Scales and T-tests for Significant Differences

Levenson Scales	Craft Entrepreneurs		Opportunistic Entrepreneurs		T-value
	Mean	S.D.	Mean	S.D.	df=62
I scale	39.6364	4.980	38.6774	5.231	0.75
P scale	18.7576	10.050	15.9677	7.007	1.28
C scale	16.8788	8.328	11.8710	7.619	2.50*

* $p < .05$

Both groups scored high on the I scale, with no significant difference between mean scores. Neither was there any significant difference between mean scores on the P scale, but C-E's scored significantly higher than O-E's on the C scale ($p=.015$).

High I scale scores are consistent with the emphasis placed by

the two groups of entrepreneurs on the importance of independence as a reason for becoming self employed and for maintaining their self-employment status. However, the extent of their business involvement may be a reflection of their relatively different levels of belief in control by chance. The O-E's have little belief in control by chance. They believe, therefore, that if they plan and organize their business operations effectively, they have little chance of failing. On the other hand, C-E's have a relatively high belief in control by chance. This would suggest that their strategy might be to reduce the element of chance by keeping their businesses small enough so that they can maintain direct personal supervision over all aspects of their businesses.

RECOMMENDATIONS

The findings in this study have a number of implications for educational programs, educational policies and further research in vocational education.

Vocational education has not given adequate attention to entrepreneurship and self-employment. On the vocational awareness level, self-employment needs to be presented to students as a career option. In addition, students should be encouraged to have an entrepreneurial perspective in whatever careers they pursue. Too often, government and large corporations are considered to be the sole creators and suppliers of employment opportunities. Therefore, these institutions are expected to

solve the problems of unemployment and job dissatisfaction. People who have developed entrepreneurial skills can become a significant force in working towards solutions to these problems.

A recent report issued by the Bureau of Labor Statistics indicates that between 1976 and 1985, about 10.4 million college graduates will be vying for some 7.7 million jobs traditionally requiring a college degree. This means that 2.7 million people will be forced to seek other work. The report concludes that, even if all graduates can find jobs of some kind, many of them are likely to be underutilized or dissatisfied with their positions. One approach toward improving this situation might be to provide educational programs which encourage persons to explore avenues of self-employment. This might have the affect of guiding suitable people toward more satisfying careers as self-employed persons. An increase in the number of self-employed persons may have two beneficial effects on the job market. First, the number of people looking to the labor market for jobs would be decreased. Second, the number of jobs available may be increased as new enterprises are initiated.

Vocational education is a life-long process. It is recommended, therefore, that programs for entrepreneurship and self-employment be initiated at a number of different levels. Depending on the needs of the clients served, the emphases at these different levels may be varied. For example, clients may be high school, community college or university students, employed persons, self-employed persons or retired people. Evidently,

these persons, with different backgrounds, have different needs.

Traditionally, educational programs relating to small business ownership have included knowledge and skills related to areas such as marketing, production, finance and management. These components continue to be essential. The results of this study indicate the need to emphasize equally the importance of the affective aspects of self-employment and entrepreneurship. The affective aspects are related to locus of control, the development of iniative, independence, and confidence in decision-making and interpersonal skills.

At the high school level, awareness of self-employment and entrepreneurship should be emphasized. The existence of at least two types of self-employment should be indicated, since success in them may demand different affective orientations. Students should be encouraged to examine their own educational interests, and to compare them to the educational interests of different types of entrepreneurs. They should also be encouraged to use the VPI and Levenson's measure of locus of control as further aids to self-awareness. The technique of writing brief scenarios of the types of businesses which interest students is highly recommended. This provides a check to see if their aspirations are consistent with their general orientations, as indiby their educational interests and their scores on the VPI and Levenson's scales. The value of this type of activity is

supported by Gottfredson and Holland[4]. "Occupational Daydreams" were found to be a good accurate predictor of later occupational choice. These self-awareness activities could be compared further with the orientations of different types of entrepreneurs.

A similiar approach may be suitable for college students and young adults. Those who have had work experience can utilize it as an added source of information. Thus, by using information from a variety of sources, individuals can arrive at clearer perceptions of themselves within the context of self-employment and entrepreneurship.

At the vocational exploration stage, students should be provided opportunities to practice entrepreneurial skills and to internalize entrepreneurial attitudes, such as problem solving, reality perception, personal causation (related to locus of control), goal setting and planning. Students should be encouraged to take an entrepreneurial approach not only to self-employment, but also to other occupational situations.

Similar programs in entrepreneurship education should be of value to existing entrepreneurs who may be experiencing problems in the running of their businesses. It is suggested that self-exploration may be of vital importance to entrepreneurs in helping them come to terms with their business prob-

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4. Gary D. Gottfredson and John R. Holland, "Vocational Choices of Men and Women, A Comparison of Predictors From the Self-Directed Search." Journal of Counseling Psychology, 1975, 22 (1) 28-34.

lems. Some entrepreneurs think that their problems stem from a lack of capital, a lack of accounting skills, etc. One advisor to this study, who is himself an entrepreneur, suggested that the real problem may be that "their businesses are in one place and their heads are in another." In other words, an entrepreneur who has a "craft" orientation may be viewing his business as an "opportunistic" type operation. In order to succeed, or even to remain in business, these persons must be able to perceive their situations realistically.

From the standpoint of educational research, the present study should be regarded as exploratory. A primary purpose of the study was to incorporate entrepreneurship into career development theory. No claim is made for statistical generalization, as the sample used in the study was a convenience sample.

The C-O assessment technique is in need of further refinement and validation. Further investigations should be carried out on all the variables suggested by Smith. This study provides prime facie evidence only of the possible inadequacy of some of Smith's variables. The findings of this study also provide evidence that three additional variables should be included to extend the typology. For the sample in this study, highly significant differences were found between C-E's and O-E's on these three variables.

Once the typology has been established, further research is needed to develop a simplified form for classifying entrepreneurs. The instrument should be a short, simple form, suitable

for administration to large representative samples. This would allow the investigation of the possible effects of a number of variables, such as age and sex. Studies could also be conducted to investigate the applicability of the Craft-Opportunistic typology to women entrepreneurs, and to investigate differences and similarities between men and women entrepreneurs. Another fruitful study would be to investigate differences between self-employed and non-self-employed workers within specific occupational categories.

Finally, a strong recommendation is made for further research in self-employment and entrepreneurship from the perspective of career development theory. There is much to be learned from a study of the career decision-making patterns of entrepreneurs and their attitudes towards work. A study of entrepreneurs, people who have taken on personal responsibility for their careers, may provide new insights into the nature of work and indicate new directions for endeavors in vocational education.

Outline of Topics for the Development of Curriculum Materials for Teaching Entrepreneurship Education

The purpose of PHASE I of the project was to study the personality characteristics of entrepreneurs from the perspective of career development theory. These characteristics will be used as a basis for the development of curriculum materials for teaching entrepreneurship.

Results of the study show that craft and opportunistic entrepreneurs may be described in terms of Holland's and Levenson's Scales. Table 2 indicates that both groups of entrepreneurs scored relatively high on Holland's Enterprising, Artistic and Investigative Scales. Skills pertinent to these scales are: self-confidence, leadership, risk-taking, communications skills, and interpersonal skills (Enterprising Scale); independence, innovation (Artistic Scale) and independence, decision-making skills (Investigative Scale). Both groups of entrepreneurs also scored highly on Levenson's I scale, indicating a strong belief in their ability to control or direct their lives. The relatively high belief of craft-entrepreneurs in control by chance would seem to be a limiting factor.

The following outline of topics presents a suggested format for organizing the teaching of the skills outlined above:

TABLE 4

Outline of Topics for Entrepreneurship Education

I. PERSONAL INITIATIVE

(a) Internal Control
1. Planning
2. Setting Goals
3. Determining Priorities
4. Managing Time

(b) Innovating
1. Producing Ideas
2. Combining Ideas
3. Refining Ideas
4. Applying Ideas

II. PERSONAL EFFECTIVENESS

(a) Self-Awareness
1. Personal Needs
2. Personal Motivation
3. Recognizing and Using Feedback
4. Developing Confidence

(b) Interpersonal Relations
1. Communication
2. Assertiveness
3. Involving Others

III. REALITY PERCEPTION

(a) Blocks to Perception

(b) Verifying Perceptions

IV. MAKING DECISIONS

(a) Defining Problem

(b) Gathering and Organizing Information

(c) Evaluating Possible Solutions

(d) Risk-taking

(e) Getting and Using Feedback (Evaluating Outcomes)

Approach to Entrepreneurship Curriculum Materials

Instructional units to teach the topics outlined above will be developed at three levels. The first four units will be developed at the Conceptual level. The purpose of this level is to provide students with the information they need in order to develop certain skills, attitudes and behavior. Students will be afforded opportunities for self-evaluation, and each of the units will also include a multiple-response objective test.

The principal focus of Level Two, the Application level, will be to give students opportunities to apply the concepts learned in Level One. Six units will be developed at this level, and each will be based on content area relating to different phases of initiating a business. These units will be in project format, and will help students gain confidence in practicing entrepreneurial skills. They will also provide students with opportunities to interact with persons in the community who may serve as relevant role models. Interaction with entrepreneurs in real life situations is essential for the effective learning of entrepreneurial skills.

At least two units will be developed at the Initiation level, or Level Three. At this level, students will be provided optimum opportunity to structure their own learning by developing business plans for enterprises that could feasibly be carried out. Students will also be asked to evaluate their attitudes and behavior throughout the duration of these projects.